

REMARKS/ARGUMENTS

Claims 1-15 are pending in the application. Claims 1-8 are allowed. Reconsideration and allowance of claims 1-15 in view of the following remarks is respectfully requested.

The rejection of claims 9-10 and 12 under 35 U.S.C. § 103:

Claims 9-10 and 12 stand rejected as being obvious in view of Bruns (DE 423 29 9N1 A1), in combination with Schlitz (U.S. Pat. No. 2,128,330).

Applicant disagrees with the Examiner's conclusion and traverses the rejection for the following reason. The Examiner has failed to establish a prima facie case of obviousness since the prior art references do not teach or suggest all the claim limitations.

Specifically, Applicant's claim 9 recites that both the compression chamber and ignition chamber have an "epicycloidal-shaped chamber wall." This "epicycloidal-shaped chamber wall" is structurally different than the cited reference, and this structural difference has a functional significance. The claimed "epicycloidal-shaped chamber walls" are shown in Applicant's Figs. 2, 5, 6, and 7, and are distinct from the cylindrical inner wall 6 of the Schlitz device shown in Fig. 11. While the term "epicycloidal" is used in Schlitz, term "epicycloidal" is not used to describe an "epicycloidal-shaped chamber wall" as required by Applicant's claim 9. Instead, the inner wall 6 of Schlitz shown in Fig. 11 and discussed at page 3, column 2, lines 42-50, is described as being an inner wall 6 of a front rotatable cylinder 2. As the inner wall 6 itself (and not space 5) is a wall of cylinder 2, inner wall 6 is necessarily circular as shown in Fig. 11. The term "epicycloidal" as used in Schlitz describes "epicycloidal space

5" which is formed "between the inner wall 6 of the cylinder and the outer wall 7 of said valve drum". Thus, epicycloidal space 5 of Schlitz describes the space 5 between two cylindrical/circular surfaces and does not describe the shape of the chamber wall itself, as recited in independent claim 9.

Additionally, the structural difference between the present invention and the proposed combination has a functional advantage. Specifically, the amount of fuel compressed and combust per pass in a rotary internal combustion engine is dependent in large part on the cavity between the rotors and the chamber wall. Further, the rate of compression and combustion is likewise affected by the sub-chambers formed between the chamber wall, the rotor, and the vein; thus, the chamber wall shaped directly affects the performance of the engine. As the epicycloidal-shaped chamber walls are structurally distinct from the chamber walls of Schlitz, and the structural distinction has a functional significance, Applicant asserts that independent claim 9 is not obvious in view of the proposed combination.

Likewise, dependent claims 10-15 are not obvious in view of the proposed combination, due at least to their dependence on independent claim 9.

CONCLUSION

In view of the above amendments and remarks, Applicant believes claims 1-15 are in condition for allowance and Applicant respectfully requests allowance of such claims. If any issues remain that may be expeditiously addressed in a telephone interview, the Examiner is encouraged to telephone the undersigned at 515/558-0200.

Any fees or extensions of time believed to be due in connection with this amendment are enclosed herein; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 50-2098.

Respectfully submitted,



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